ABSTRACT OF THE DISCLOSURE

A radiographic apparatus according to this invention rotates, together about a sectional axis, an X-ray tube on an X-ray tube frame surrounding the X-ray tube, and a flat panel type detector (FPD) on an FPD frame surrounding the FPD. The X-ray tube and FPD may thereby be rotated safely and at high speed. Thus, a dynamic sectional image may be obtained of a moving site of interest such as the heart.

A radiographic apparatus according to this invention has a scan frame with an X-ray tube frame and a flat panel type detector (FPD) frame arranged therein. The X-ray tube frame surrounds an X-ray tube, and the FPD frame surrounds an FPD. The X-ray tube frame and FPD frame are rotatable together about a sectional axis. Thus, the X-ray tube and FPD rotate on the respective frames together directly about the sectional axis (for a main scan). A high-speed main scan rotation is realized. Further, the X-ray tube and FPD are rotatable together about a scan center axis (for an auxiliary scan). The main scan and auxiliary scan are combined to achieve a high-speed scan and improves resolution in the direction of the sectional axis, thereby obtaining a three-dimensional sectional image with isotropic spatial resolution. Further, through a data collection synchronized with biosignals, a three-dimensional

sectional image with isotropic spatial resolution may be obtained of a moving site of interest such as the heart.